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ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. Among the topics covered in the 26 titles are the following: self concept and reading achievement; eye movement patterns and reading ability; psychological and neuropsychological measures of performance of children with variations in reading and arithmetic achievement; student morale factors and reading achievement; reflective and impulsive cognitive styles and reading achievement; interrelationships of principal's knowledge of reading, principal's leader behavior, teacher morale, and academic achievement; verbal labeling, cumulative rehearsal, and the short-term memory of normal and reading-delayed children; memory for sentences in gifted, average, and poor readers; first grade reading achievement and grouping, readiness, sex, and socioeconomic status; psychometric typologies of primary reading disability; representational competence and reading achievement; oral language structures and responses in children with reading difficulty; Piagetian cognitive development and reading and language achievement; auditory/visual and spatial/temporal integration; children's memory for prose; reading performance and awareness of comprehension of textbook passages; busing and reading achievement; the "Kinetic Family Drawing" and reading achievement; and ear dominance and reading vocabulary performance. (FL)

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A STUDY OF THE RELATIONSHIP OF SELF-CONCEPT AND READING ACHIEVEMENT OF NINTH GRADE STUDENTS

Order No. 7918516

AKANDE, Theophilus Adegboyega, Ed.D. Mississippi State University, 1979. 68pp. Director: Dr. Gordon C. Johnston

The purpose of this research was to investigate the relationship of self-concept and reading achievement of ninth grade students. The subjects of the study were 71 students from the Starkville, Mississippi Municipal Separate School City System. Thirty-four students whose reading achievement was below average and 37 other students whose reading achievement was above average were selected for the study. The below average in reading achievement level were the students who scored lower than the 8.0 grade equivalent level in overall reading achievement on the California Reading Test scored at the end of the eighth grade. The above average in reading achievement level were the students who scored higher than the 9.0 grade equivalent level in overall reading achievement on the California Reading Test.

The instruments used in the collection of data were: the Tennessee Self-Concept Scale (TSCS), and the California Reading Test (CRT). The investigator did not ask the students to take the California Reading Test (CRT), because he used the scores of the test which the students had taken in the spring of 1978. The researcher secured special permission from the subjects, school authorities and the parents of the students to use the scores of the test.

The CRT measured the students' reading vocabulary and comprehension of exercises that dealt with recalling facts, identifying main ideas, making references, and discovering relationships. The TSCS contained 100 self-descriptive statements divided into the following subscales: physical self, moral self, personal self, family self, social self, self-criticism, identity, self-satisfaction, behavior and total self-concept.

The analysis of variance was utilized to analyze the data, and the .05 level of significance was employed to test the two null hypotheses.

Hypothesis 1. There will be no significant difference in the self-concept of ninth grade students who are classified as below average on reading achievement and those who are classified as above average on reading achievement.

Hypothesis 2. There will be no significant difference in self-concept of boys and girls in the ninth grade who are classified as below average and above average on reading achievement.

As a result of the data analysis, the following findings were obtained:

1. The above average group in reading achievement scored significantly higher in self-concept than did the below average group in reading achievement on all of the ten subscales of the TSCS.

2. There were significant differences at the .01 level between the two groups on the following seven subscale variables: moral self, family self, social self, identity, self-satisfaction, behavior and total self-concept.

3. There were significant differences at the .05 level between the two groups on the variables associated with physical self, personal self, and self-criticism.

4. The above average boys scored significantly higher than the below average boys at the .01 level on the following eight variables: moral self, personal self, family self, social self, identity, self-satisfaction, behavior and total self-concept.

5. There were differences in self-concept at the .05 level between the above average and the below average boys on the physical self.

6. The means on two scales (moral self and identity) for the above average girls were significantly higher than those for the below average girls at the .01 level.

7. The above average girls scored significantly higher at the .05 level of significance than the below average girls on the following three subscales: social self, self-satisfaction and total self-concept.

8. There was no difference in self-concept between the girls reading at the above average level and those reading on the below average level on physical self, personal self, family self, self-criticism and behavior.

THE EYE MOVEMENT PATTERNS OF CHILDREN VIEWING STATIC VERSUS MOVING STIMULI AND THE RELATION OF THESE EYE MOVEMENTS TO FIELD ARTICULATION AND READING ABILITY

BARON, Lois Judith, Ph.D. University of Toronto (Canada), 1978

The eye movements of good and poor readers, field independent, and field dependent children were examined as they watched two modes of stimuli -- a dynamic and static presentation. Research related to these organismic and environmental factors was reviewed with the idea that eye movements would serve as a useful indicator of the scanning patterns of certain individuals faced with particular stimuli. Individual difference studies and research concerning various modes of instruction were the basis from which this study was performed and the rationale for research conceived.

It was hypothesized that not only would good and poor readers and field independent and dependent children differ on the five eye movement measures chosen for this research, but also that the modes of stimulus presentation would yield significantly different results.

The eye movements of eighty-five subjects (42 boys and 43 girls) were monitored as they viewed the dynamic and static series of seven segments from the reading program The Electric Company. Stimuli were presented by means of a videotape while eye movement patterns were simultaneously recorded in a computer. The experimental procedure was such that the subjects were comfortable during the eye monitoring procedure and fully understood the nature of the instructions.

The eye movements were analyzed according to five eye movement indices -- orientation time, percentage of fixations on target, time on target, left-to-right fixations, and average length of fixation. An additional dependent variable was the difference in two word recognition scores, one assessed prior to undergoing eye movement measurement and the other measured subsequent to viewing one of the modes of presentation. For analysis, the data was divided into that obtained from those subjects who viewed the dynamic stimulus first and those who watched the static presentation before the dynamic.

Regression Analyses were performed on both the segment and word recognition data. Analyses were also carried out on data averaged over all the segments and data gathered during the onset of the first few seconds of a segment. The variable sex was also included as part of the analysis.

A major conclusion inferred from the data of this study was that eye movements were rather stimulus or segment specific. Such a conclusion was reached by the fact that different segments produced different main and interactive effects for the various eye movement measures.

One of the main points of discussion centers around whether non-significant differences meant that the stimuli were supplanting the mental processes of individuals, or whether perceptual "sampling" of good readers and field independent subjects actually diminished differences between their respective counterparts. It was suggested that future research ought to investigate this question further. Additional suggestions for future research are presented, as is a discussion of educational implications evolving from this study.

Eye movement research is a valuable means of studying both the perceptual styles of various individuals and the effects of environmental stimuli. Although not commonly employed as a means of assessing individual differences across instructional environments, eye movement research has proven to be a useful tool of investigation here. In this study eye movements described the mode of attacking two kinds of stimulus presentations by subjects differentiated by reading ability and field articulation. The data resulted in some interesting and informative findings which are relevant to those interested in the instructional process, methods of instruction, and individual differences.

AN INVESTIGATION OF THE RELATIONSHIP OF SELECTED STUDENT MORALE FACTORS TO STUDENT READING ACHIEVEMENT IN THE ELEMENTARY SCHOOL

Order No. 7921074

BATES, Kenneth Lloyd, Ed.D. Hofstra University, 1979. 148pp.

The purposes of this study were: (1) to explore the relationship between student morale and reading achievement; (2) to determine if the selected student morale factors, either individually or in combination, permit prediction of student reading achievement; and (3) to determine whether there is a difference between the morale of good and poor readers.

Thirty elementary school students were randomly selected in each of grades three through six from a total population of six hundred students. The total sample of 120 students was drawn from among those students receiving reading instruction in an individualized reading laboratory from teachers whose morale was determined to be high.

Teacher morale was measured by the Work Atmosphere Questionnaire developed by Hoffmeister. Student morale was measured by Hoffmeister's Self-Esteem Questionnaire and Classroom Atmosphere Questionnaire. The student morale factors measured were: (1) student perception of the teacher as being accepting and understanding; (2) student perception of the teacher as being supportive in the development of problem-solving skills; (3) student self-esteem; and (4) student self-satisfaction. The comprehension section of the Stanford Diagnostic Reading Test was administered to identify good and poor readers.

The statistical procedures employed were the Pearson Product-Moment Correlation, analysis of variance, multiple regression analysis, and t-tests. Significance was measured by an alpha level of .05.

In examining the relationship of student morale to reading achievement, the following significant intercorrelations at the .05 level were found: (1) teacher support in problem-solving skills was negatively related to reading achievement for the thirty students in grade four; (2) student self-esteem was positively related to reading achievement for the fifteen males in grade five; (3) teacher support in problem-solving skills was negatively related to reading achievement for the sixty females in grades three to six, and (4) teacher support in problem-solving skills was negatively related to reading achievement for the fifteen females in grade four.

In examining whether student morale factors were predictive of student reading achievement, a significant difference at the .05 level was found in the larger sample groups between reading achievement and: (1) teacher support in problem-solving skills for the 120 students in grades three to six; (2) the combined morale factors for the thirty students in grade four; (3) teacher support in problem-solving skills for the thirty students in grade four; and (4) student self-esteem for the thirty students in grade four.

A significant difference at the .05 level was found between the morale of good and poor readers and the student morale factors of: (1) teacher acceptance and understanding for the 120 students in grades three to six; (2) student self-esteem for the sixty males in grades three to six; (3) teacher acceptance and understanding for the sixty females in grades three to six; and (4) student self-satisfaction for the thirty students in grade five.

Among the conclusions reached were the following: (1) the relationship between student morale and reading achievement, in general, was not significant; (2) a limited relationship appeared to exist between the individual morale factors and reading achievement; (3) student morale, in general, was not predictive of reading achievement; and (4) there was a significant difference between good and poor readers in the entire sample and the morale factor of teacher acceptance and understanding.

PATTERNS OF PSYCHOLOGICAL AND NEUROPSYCHOLOGICAL MEASURES OF PERFORMANCE IN INTER AND INTRA GROUP COMPARISONS IN CHILDREN WITH VARIATIONS IN READING AND ARITHMETIC ACHIEVEMENT

Order No. 7918486

BATSCHE, George Milton, Jr., Ed.D. Ball State University, 1978. 142pp. Adviser: Dr. Wyman Fischer

The present study was designed to determine psychological and neuropsychological patterns of functioning in three groups of children with variations in reading and arithmetic achievement. The groups were divided on the basis of achievement patterns in arithmetic and reading. Group One consisted of subjects with reading achievement two and one-half years below arithmetic achievement. Group Two consisted of subjects with arithmetic achievement two and one-half years below reading achievement and Group Three consisted of subjects whose performance in arithmetic and reading were two and one-half years below achievement expectancy level based on age and ability levels. The results were discussed on the basis of the measured patterns of performance for the three groups.

Subjects in this study were chosen from approximately 600 subjects who had received an extensive battery of psychological and neuropsychological tests over a five year period. The children were all enrolled in public school and were between the ages of 9 and 13.

The data collected for each subject came from the following instruments: (1) the Halstead-Reitan Neuropsychological battery, (2) the Reitan-Klove Sensory Perceptual battery, (3) the Klove-Matthews Motor Steadiness battery, (4) the Wechsler Intelligence Scale for Children, (5) the Peabody Picture Vocabulary Test, and (6) the Wide Range Achievement Test.

The data were treated by one-way analysis of variance and multivariate analysis of variance. Group One differed significantly from Group Two on both Verbal and Performance measures of I.Q. as well as on verbal and auditory perceptual measures of the Halstead-Reitan Neuropsychological battery. Although the difference between the two groups approached significance on the performance and visual perceptual measures of the Halstead-Reitan battery, the composite mean raw scores of the measures for the two groups did not differ statistically. Both groups differed significantly from the normative group.

Under the constraints of the study, the following conclusions were drawn.

1. Children with a Low Reading-High Arithmetic pattern of achievement present significantly lower Verbal than Performance I.Q., similar to a group of subjects with documented left hemisphere damage. Children with a High Reading-Low Arithmetic pattern present significantly lower Performance than Verbal I.Q., similar to a group of subjects with documented right hemisphere damage.
2. Children with a Low Reading-High Arithmetic pattern present lower Verbal and higher Performance I.Q.s than the High Reading-Low Arithmetic group. Children with a High Reading-Low Arithmetic pattern present a higher Verbal and lower Performance I.Q. than the Low Reading-High Arithmetic Group.
3. Children with a Low Reading-High Arithmetic pattern present a significantly lower performance on the verbal and auditory perceptual measures than the High Reading-Low Arithmetic pattern which perform significantly higher on these measures.
4. Children with a High Reading-Low Arithmetic pattern tend to perform lower on the performance and visual perceptual variables than do Low Reading-High Arithmetic groups.

5. Children with a Low Reading-Low Arithmetic pattern present a significantly lower Verbal and Performance I.Q. and perform numerically in a position medial to and lower than the Low Reading-Higher Arithmetic and Low Arithmetic-High Reading pattern.

6. The High Reading-Low Arithmetic patterns demonstrate weaknesses in visual perceptual areas and strengths in verbal and auditory areas. This pattern would indicate that arithmetic skills, as measured by paper and pencil computation exercises, are greatly influenced by perceptual factors. Weaknesses are demonstrated in the performance of the skill and not in the conceptual abilities associated with that skill.

7. A difference of two and one-half or more years between reading and arithmetic achievement is indicative of possible neurological impairment in the left hemisphere for the low reading pattern and in the right hemisphere for the low arithmetic pattern.

8. Organizing subject groups on the basis of educational achievement levels and patterns yields results similar to studies in which the groups were organized on the basis of I.Q. score and lateralized motor deficit patterns.

AN EXAMINATION OF THE RELATIONSHIP BETWEEN REFLECTIVE AND IMPULSIVE COGNITIVE STYLES AND READING ACHIEVEMENT IN ELEMENTARY SCHOOL CHILDREN
Order No. 7917415

CONNER, Thomas Michael, Ph.D. University of Pittsburgh, 1978. 86pp.

Statement of the Problem

The problem of this study is to examine the relationship between reflective and impulsive cognitive styles and reading achievement in elementary school children.

Procedures

Reflective or impulsive cognitive styles were identified in two hundred fifteen (215) students and ten (10) classroom teachers in grades two through six by means of an individual administration of the Matching Familiar Figures Test (M.F.F.T.). Scores from the May, 1977 and May, 1978 Metropolitan Achievement Test in Total Reading were used as pre and post measures to determine reading gain. Students were further identified according to placement by their reading teachers in high, high average, low average, and low reading groups. The cognitive styles of reading teachers participating in the study were also identified.

Fifteen research questions were developed which focused on reading gain scores as they were related to cognitive style, reading group, sex and teacher cognitive styles. A t-test of probability was used with each question in order to determine the level of significance in reading gain which had been set at the .003 level. Because subjects for each t-test were drawn from the same population, .003 was established as the acceptable level of significance for the study.

Findings

1. There was no significant difference in reading between reflective and impulsive students when grouped by sex, cognitive style, or reading group.

2. There was no significant difference in reading gain scores when students matched or mismatched their teachers cognitive style.

3. Female students showed a higher overall mean gain than male students.

4. Reflective students showed higher gain scores than impulsives regardless of grouping.

5. There was a larger number of male subjects in the lower groups than female subjects.

6. The low average reading and low groups were composed of more impulsive (77%) than reflective students (23%).

7. The high and high average reading groups were composed of more impulsive (59%) than reflective students (41%).

Recommendations For Future Research

1. Future research should attempt to identify the specific classroom behaviors of students identified as having reflective or impulsive cognitive styles. Data could be collected in normal reading classes using a combination of personal observation, audio tape and video tape techniques. These behaviors could then be categorized and used to develop alternative instructional approaches for students who would benefit from them.

2. Future research should be conducted to more closely define the relationship between the reflective and impulsive dimensions of the cognitive style and specific reading skills. This work should focus on a comparison of gain scores for specific skills such as comprehension, word knowledge and critical reading with the reflective and impulsive dimensions.

3. Future research should examine the composition of various reading groups in order to substantiate the findings of this study.

4. A longitudinal study should be conducted to determine the degree of consistency or inconsistency of students at particular age and grade levels, in the developmental growth rate of the reflective and impulsive cognitive style dimensions. This study should involve large populations from a variety of socio-economic backgrounds and grade levels in order to provide a more clearly defined pattern of reflective and impulsive cognitive style development.

5. Future research should examine the relationship between the reflective and impulsive dimensions and the sex of the subject.

6. Future research should attempt to develop a set of norms for the Matching Familiar Figures Test to allow for the comparison of small samples to larger populations. The determination of reflectivity and impulsivity is presently based on the individual sample population which does not allow for general ability.

INTERRELATIONSHIPS OF PRINCIPAL'S KNOWLEDGE OF READING, PRINCIPAL'S LEADER BEHAVIOR, TEACHER MORALE AND ACADEMIC ACHIEVEMENT
Order No. 7919999

CUMMINGS, Clarence Thomas, Jr., Ph.D. Georgia State University – College of Education, 1979. 108pp.

Purpose

To examine the interrelationships of principal knowledge of reading, principal leader behavior, staff morale and reading achievement of students, as measured by performance on standardized achievement tests.

Methods and Procedures

The study was conducted in the public school system of a large southeastern city. Twenty schools with student populations composed primarily of black upper-lower and lower middle-class students participated in the study.

As a measure of reading achievement, performance of the fourth-grade level students on the Iowa Tests of Basic Skills, expressed in terms of age achievement quotients (AAQ) was used. Principal knowledge of reading was measured by administering the Inventory of Teacher Knowledge of Reading to

the principals of the schools participating in the study. The measures for leader behavior and staff morale were obtained by having teachers from each of the participating schools complete the Leader Behavior Description Questionnaire--Form XII and the Purdue Teacher Opinionaire.

Correlational and multiple regression analyses were performed using both the global factors of leader behavior and staff morale, and the sub-components of leader behavior and staff morale in combination with the other major variables.

Results

The results of the data analysis indicated that:

a. There was a statistically significant relationship between leader behavior and staff morale.

b. There were no other statistically significant relationships between reading achievement, principal knowledge of reading and the global factors of leader behavior and staff morale.

c. There were no statistically significant relationships between any of the sub-components of leader behavior and reading achievement.

d. Of the sub-components of staff morale there were statistically significant relationships between community support and curriculum issues and reading achievement.

e. Of the variables examined in this study, community support was the best predictor of reading achievement.

Conclusions

Based on the findings of the study, the following conclusions are drawn:

a. There is a significant relationship between the teacher's perception of the principal's leader behavior and the morale of the teaching staff. The higher the regard for the leader behavior of the principal, the higher the morale of the staff.

b. Principal knowledge of reading did not have a significant impact on the teacher perceptions of the principal's leader behavior, the morale of the teaching staff or the reading achievement of the students.

c. Community support of education and the effectiveness of the school's curriculum are significantly related to student reading achievement.

THE EFFECTS OF VERBAL LABELING AND CUMULATIVE REHEARSAL ON THE SHORT-TERM MEMORY OF NORMAL AND READING-DELAYED CHILDREN Order No. 7924313

DINAN, William Alfred, II, Ph.D. The University of Utah, 1979. 84pp. Chairman: Harry P. Bluhm

Psychologists have studied the development of memory in normal children for many years, but have only recently extended their study to reading-delayed children. This may prove to be an especially fruitful line of research, as the use of mnemonic strategies has been shown to develop at about the age when children are learning to read. In the present study 56 third-grade boys performed a serial position recall task under three rehearsal conditions, no rehearsal, verbal labeling and cumulative rehearsal. Approximately one-half of the subjects in each rehearsal condition were reading-delayed, relative to their grade placement, while the other half were normal readers. The results support the performance deficit view of reading delay, that reading-delayed children have the skills for age-appropriate performance, but that they fail to use their skills in the most efficient manner. All six groups of subjects performed significantly better on the recency items. Subjects in all groups, except the normal-reading verbal labeling and the reading-delayed verbal labeling groups, exhibited facilitative primacy effects. A significant difference was found between the reading-delayed verbal labeling group and the reading-delayed cumulative rehearsal group at the first serial position. These results are discussed in terms of a production deficit on the part of the reading-delayed subjects. The absence of strong primacy effects and methodological reasons for this results are also discussed.

MEMORY FOR SENTENCES IN GIFTED, AVERAGE, AND POOR READERS Order No. 7917182

FEIBEL, Diane Klieger, Ed.D. The University of Rochester, 1979. 60pp.

The two objectives of this study were to determine: (1) In what aspect(s) of verbal memory gifted, average, and poor readers differ; and (2) Is there a deficit or developmental lag in the processing abilities of poor readers. The three variables under consideration were meaning, word item, and word order in sets of unrelated sentences.

Previous research investigating deficits in poor readers has not been entirely conclusive and results can sometimes be explained by immature processing, i.e., developmental lag.

At the other extreme, previous research has been minimal in investigating cognitive development in the gifted. For this group, the present research attempted to determine whether the gifted process information on a more mature level, i.e., acceleration, or process it differently from the average child.

The hypotheses were twofold:

(1) Some poor readers being diagnosed with deficits do not have an actual deficit in processing, but process verbal information on an immature level.

(2) Good and poor readers differ in the aspect(s) of sentences they remember based upon their level of reading comprehension.

The Ss were gifted, average, and poor readers from the 3rd and 6th grades of a suburban school district. The selection criteria for the Ss were reading level as measured by a standardized reading test; at least normal intelligence; no severe deficit in vision, hearing, or motor performance; no recognizable social, emotional, or psychological handicaps, and no severe educational or cultural deprivation. The gifted readers read at least one year above grade level, the average readers read at grade level, and the poor readers read at least one year below grade level.

The task consisted of 72 test sentences and 72 recognition sentences. One-half of the recognition sentences were OLD (identical to test sentences). The remaining 36 recognition sentences were NEW. They were divided into 3 groups, each one containing sentences manipulated by changing either word order, meaning, or word item (by synonym substitution).

Errors were analyzed by ANOVA to determine differences between reading levels and grades. Results showed that good and poor readers performed comparably on OLD (unmanipulated) sentences. On the NEW (manipulated) sentences, however, good readers outperformed the poor readers consistently. This suggests that poor readers do not have a general memory deficit, but are deficient in comparing test sentences with manipulated recognition sentences. There were no grade differences as one would expect with developmental lag. In addition, all Ss made significantly more errors on recognition sentences where a synonym had been substituted, indicating that a change in word item was the most difficult to pick out.

NONORAL MISCUE ANALYSIS OF MORE FORMAL THINKING AND MORE CONCRETE THINKING READERS FOR THE PURPOSE OF ESTABLISHING FLUENCY IN DESCRIPTION AND ARGUMENTATION Order No. 7914857

FOLTZ, Mary Jo Elizabeth Wisneski, Ed.D. University of Northern Colorado, 1979. 166pp.

The study involved an investigation of the quantitative and qualitative differences in reading fluency of more formal and more concrete thinkers on description and argumentation.

Two samples were selected from ten EDRD 130 College Reading and Study Skills or EDRD 131 Speed Reading classes at the University of Northern Colorado. The samples were: (1) ten more formal thinkers as identified by the Logical Reasoning Test, and (2) ten more concrete thinkers as identified by the Logical Reasoning Test. Nonoral miscues, or nonexact replacements for deleted words in selected description and argumentation passages, provided data for quantitative and qualitative analysis.

The quantitative analysis consisted of the tabulation of the frequency of nonoral miscues, or nonexact replacements. In the qualitative analysis, nonoral miscues, or nonexact replacements, were rated according to a semantic acceptability question.

Mean scores computed for the quantitative and qualitative analysis of nonoral miscues for more formal subjects and for more concrete subjects were subjected to a t-test for independent samples with .05 as the level of significance. The quantitative and qualitative findings yielded a significant difference for number and quality of nonoral miscues, or nonexact replacements, in the comparison of more formal and more concrete thinkers.

Mean scores computed for the quantitative and qualitative analysis for type of reading material were subjected to a t-test for independent samples with .05 as the level of significance. The quantitative findings yielded no significant differences for number of nonoral miscues of reading material in the comparison of description and argumentation. The qualitative findings yielded a significant difference for quality of nonoral miscues or nonexact replacements in the comparison of description and argumentation.

As a result of these findings, the null hypotheses that there are no differences quantitatively and qualitatively for nonoral miscues, or nonexact replacements, of more formal and more concrete thinkers was rejected. The null hypothesis that there were no differences quantitatively for nonoral miscues, or nonexact replacements, on two types of reading material was accepted. The null hypothesis that there were no differences qualitatively for nonoral miscues, or nonexact replacements, on two types of reading material was rejected.

It was concluded that there were quantitative and qualitative differences between nonoral miscues made by more formal and more concrete subjects. There was no quantitative difference between nonoral miscues made by formal and concrete readers on two types of material. There was a qualitative difference between nonoral miscues made by formal and concrete readers on two types of material.

These instructional considerations for the type of students who enroll in EDRD 130 College Reading and Study Skills or EDRD 131 Speed Reading are supported by the conclusions of this study.

1. Student thinking may be a more important consideration than the nature of the material;
2. Random enrollment of students in content courses may be suspect; and
3. Differentiation of content delivery may be necessary for differences in thinking abilities.

Further research could include the following:

1. Validation of the procedure to measure semantic acceptability of nonoral miscues;
2. A comparison of oral reading miscues of formal and concrete thinkers on description and argumentation;
3. An investigation of the effect of variation of graphic cues on nonexact replacements in different types of material;
4. A comparison of oral and nonoral miscues for the same subjects on similar material; and
5. An investigation of thinking level of students in teacher education programs and comprehension of course material.

THE RELATIONSHIP BETWEEN FIRST GRADE READING ACHIEVEMENT AND GROUPING, READINESS, SEX, AND SOCIO-ECONOMIC STATUS Order No. 7926221

FRUITT, Jane Bergman, Ph.D. The University of North Carolina at Chapel Hill, 1979. 102pp. Supervisor: Barbara Day

Statement of the Problem

The purpose of this study was to investigate the relationship between the reading achievement of first grade students and the type of grouping utilized -- kindergarten/first grade multi-age (K–1), first grade/second grade multi-age (1–2), and single age (1). Independent variables of readiness, sex, and socio-economic status (SES) were included in the research design.

Hypotheses

A null hypothesis was stated for each main effect and for each two-way interaction between design factors.

Sample

The subjects for this study consisted of 136 first grade children in six two-teacher teams in three schools in suburban Wake County, North Carolina. Responses to a researcher designed questionnaire confirmed that all classes were similar in staff, materials, methods, and organization.

Design

A 3 x 3 x 2 x 3 factorial design was employed. The factors included three levels of grouping -- K–1, 1–2, and 1; three levels of readiness -- high, average, and low; two levels of sex; and three levels of SES -- upper middle, middle, and low.

Collection of Data

Scores on the Santa Clara Inventory of Developmental Tasks, administered at the end of kindergarten, were used to determine readiness level. The Hollingshead Two Factor Index of Social Position was used to assign SES level according to occupation and educational level of the head of the household. Scale scores on the Prescriptive Reading Inventory (PRI), administered at the end of first grade, were used as measures of achievement. All data were obtained from school records.

Analysis of Data

The analysis of variance technique (ANOVA) was used to determine significant main effects and two-way interactions between design factors. When the ANOVA F-test resulted in the rejection of the null hypothesis, the Tukey multiple comparisons methods was used to determine which pairs of means were significantly different. Preliminary analysis of data was conducted by computer utilizing Statistical Analysis System (SAS) general linear models procedure.

Results

ANOVA results indicated that grouping was a highly significant factor (.001 level). Group 1–2 and group 1 both achieved significantly higher (.01 level) than did group K–1. Group 1 scored slightly higher than did group 1–2, but the difference in means was not significant at the .05 level.

The factor of readiness was highly significant (.001 level), and the sex factor was not significant (.05 level). There was a significant interaction (.01 level) between the readiness and sex factors, indicating that readiness is not constant across both sexes.

SES was found to be significant at the .05 level of probability. The upper middle and middle SES groups both scored significantly higher than did the low SES group (.01 and .05 levels, respectively). The upper middle group scored slightly higher than did the middle SES group, but the difference in mean scores was not significant at the .05 level of probability.

Conclusions

1. First grade students in single age classes and in first grade/second grade multi-age classes achieve significantly higher than do first grade students in kindergarten/first grade multi-age classes.
2. First grade students in single age classes achieve slightly higher than do first grade students in first grade/second grade multi-age classes, but there is no significant difference between the two groups.
3. First grade students in the upper middle SES group and in the middle SES group achieve significantly higher than do students in the low SES group.
4. First grade students in the upper middle SES group achieve slightly higher than do students in the middle SES group, but there is no significant differences between the two groups.
5. There is a significant interaction between the factors of readiness and sex.

AN ANALYSIS OF VARIOUS PSYCHOMETRIC TYPOLOGIES OF PRIMARY READING DISABILITY

GINN, Richard Sayer, Ph.D. University of Southern California, 1979. Chairman: Professor James F. Magary

Purpose. The purpose of this study was to investigate the validity of subtypes of primary reading disability among eight- through thirteen-year old "educationally handicapped" boys. Specifically, relationships were sought between reading disability subtypes identified by Elena Boder's Reading-Spelling Pattern Test (RSPT) and Maxine Smith's WISC-R subtest patterns. Additionally, inferences were then drawn concerning the construct validity of the reading disability subtypes. Possible interactions were investigated between the Boder subtypes and the variables of age, ethnicity (Euro-American and Hispanic surname), and intelligence.

Procedure. The Boder RSPT was administered to 214 eight- through thirteen-year-old boys, 100 of them reading disabled and 114 normal readers. In order to evaluate the RSPT's diagnostic validity, the reading-spelling patterns of both samples were objectively scored, without regard to reading level, to yield diagnoses of "reading disabled" or "normal." To evaluate the construct validity of the subtypes, the reading disabled sample was then categorized into subgroups by two differing procedures: (1) Boder's RSPT on the basis of reading-spelling performance, and (2) WISC-R subtest pattern analyses as described by Maxine Smith. These data were analyzed by two 2×2 chi square matrices. Discriminant analyses were then employed to further define possible relationships between the RSPT and WISC-R. The RSPT subtypes were then examined for interactions with age, ethnicity (Euro-American versus Hispanic surname), and intelligence.

Findings. The RSPT was found to discriminate between reading disabled and normals on the basis of reading-spelling patterns: 91 percent of the reading disabled and 82.5 percent of the normals exhibited the expected patterns. Among the disabled readers, 85 percent of the RSPT Group I (dysphonetic) also exhibited Smith's WISC-R Pattern I (low Verbal-high Performance), and 80 percent of the RSPT Group II also exhibited Smith's WISC-R Pattern II (lower Performance than Verbal). Significant interactions were found between the RSPT subtypes and WISC-R Verbal IQ, but no significant interactions were found with respect to age or ethnicity.

Conclusions. A number of the findings lend support to the validity of the RSPT to: (1) diagnose children with primary reading disability on the basis of reading-spelling patterns, and (2) discriminate among three subtypes of primary reading disability. Construct validity for Boder's dysphonetic, dyseidetic, and combination dysphonetic-dyseidetic subtypes were strengthened by the study. Boder's Group III (dysphonetic-dyseidetic) was found to exhibit a WISC-R subtest profile almost identical to the dysphonetic group but consistently lower. Dysphonetic was the largest subtype suggesting that auditory-language, rather than visuospatial deficits are primarily causal to most cases of primary reading disability.

Recommendations. The present investigation evaluated the RSPT with respect to clearly defined samples of normal and reading-disabled boys. Further research is needed to test the validity of the subtypes within more normal school populations and within a variety of student populations which differ with respect to such factors as race, culture, environmental opportunity, sex, and intelligence.

A CORRELATIONAL STUDY BETWEEN REPRESENTATIONAL COMPETENCE AND READING ACHIEVEMENT

Order No. 7920041

HENDERSON, Sam Sook Chung, Ph.D. University of South Carolina, 1979. 113pp.

The study was based on Irving E. Sigel's Distancing Hypothesis that acquisition of representational competence depends upon a life experience. The purpose of this study was to determine possible relationships of a child's reading achievement and his representational competence. The reading achievement was measured by CTBS Reading Test and representational competence was measured by Sigel's object and picture Categorizing Test.

Subjects were a randomly selected sample of sixty first grade boys and girls from the city of Columbia, South Carolina. The questions were asked (1) Is reading achievement a function of representational competence? (2) Are differences of the representational competence a function of sex and/or race and/or preschool experience of child? The findings of the first question were significant and positively correlated between the variables. The findings of the second question were (1) Object scores were higher than picture scores and the difference was significant ($t=2.74$, $p<.008$). (2) Preschool experienced Ss scored higher than no preschool experienced Ss. (3) White Ss scored higher than black Ss. (4) There was found to be no significant difference between the boys and girls.

ORAL LANGUAGE STRUCTURES AND RESPONSES IN CHILDREN WITH READING DIFFICULTY

Order No. 7922869

IDOL-MAESTAS, Lorna, Ph.D. The University of New Mexico, 1979. 238pp.

Oral language structures and responses of 120 children from second, fourth and sixth grades were analyzed. The subjects were randomly selected from the Santa Fe School District in Santa Fe, New Mexico. The subjects were comprised of a group of children with reading disabilities receiving special education services for reading and a control group receiving reading instruction in regular classrooms. The subjects were divided evenly representing females and males. The ethnic origins of the subjects were Spanish-American, Anglo-American and Spanish/Anglo-American.

The effects of socioeconomic level and nonverbal problem solving ability (Raven Progressive Matrices) were treated as covariates in a multivariate analysis. Neither of these covariates had a significant effect upon the outcome variables.

An oral language sample was collected for each subject. Use of grammatical-syntactical structures was measured by the Developmental Sentence Scoring (DSS). A Mean Length of Utterance (MLU) was calculated to discern the average morphological length of the utterances. A Type-Token Ratio (TTR)

was used to reflect the ratio of the total number of words used by each subject as compared to the number of different words used. The total number of examiner prompts necessary to elicit a 50-utterance language sample was also collected.

A multivariate analysis of covariance design was utilized. The effects of four factors were considered: group membership, sex, grade level and ethnicity. When all four dependent measures were considered the reading disabled children scored significantly different than the control group ($p < .0169$). Standardized discriminant function coefficients were used to determine the relative weight of each dependent measure. The MLU, the TTR and the number of verbal prompts contributed significantly to group separation, using a cutoff score of .30. The DSS was not a significant multivariate contributor when the MLU had already been considered because these two measures were highly correlated. When the MLU scores were not considered, the DSS contributed the most to group separation.

Single dependent measure scores reflecting morphological and grammatical/syntactical usage were lower for the subjects with reading problems (DSS and MLU). Post hoc analysis of usage of fourteen parts of speech using multiple t comparisons resulted in two parts of speech being different for the two groups. The control subjects used more adverbs ($p < .0001$) and auxiliary verbs ($p < .0001$) than the reading disabled group.

Sex was another significant factor affecting the dependent measures ($p < .0048$). Sex differences were reflected by significant standardized discriminant function coefficients for the TTR, the number of verbal prompts and the MLU. Again, when MLU effects were removed, the DSS was a significant multivariate dependent measure. Female subjects scored higher on the morphological and grammatical/syntactical measures (DSS and MLU). Male subjects used more different words than did females.

The effects of ethnicity and grade level were not found to have a significant effect upon the performance of the subjects. The results of this study lend support to the position that reading disabilities and language disabilities are related. Should further replication studies support this position, then remedial programs focusing on language assessment and instruction could be topics for future intervention studies.

NEUROPSYCHOLOGICAL VARIABLES AND READING DISABILITY IN 9–14 YEAR OLD CHILDREN

Order No. 7917585

JOHNSON, Joybelle Scandrett, Ph.D. University of Washington, 1978. 84pp. Chairperson: Associate Professor Robert L. Brown

This study investigated the relationship between neuropsychological variables and three kinds of reading disability in children 9–14 years old. Fifty-three disabled readers, 9–14 years of age, who had been referred to a University-related clinic for academic or behavior disorders, were administered extensive reading (Spache, 1972) and neuropsychological tests, (Halstead Neuropsychological Test Battery for Children 9–14 years old). Errors in reading, both word-calling and comprehension as well as performances on subtests which were primarily phonic or visual were scored. These scores formed the basis for entry into one of the 3 groups, "dyseidetic" (auditory learners), "dysphonetic" (visual learners), and "dyseidetic-dysphonetic" (alexic). Each group was hypothesized to have either right hemispheric deficits (auditory learners), left hemispheric deficits (visual learners), or both. Nine Wechsler subtests and nine lateralizing tests (those which identify right or left hemispheric dysfunction) were used as variables in two separate discriminant analyses to predict the three groups. Results showed a significant number of cases could be correctly identified using each set of variables. Most predictive Wechsler tests were Information, ($p = < .01$) Picture Completion; ($p = < .03$), and Vocabulary ($p = < .05$). Lateralizing tests which were most predictive were Aphasia, ($p = < .006$), Sensory Perception ($p = < .003$), and Finger Oscillation ($p = < .004$). Thus, the hypothesis that differential cerebral functioning accounted for different types of reading disability were supported.

The second investigation of this study was of the relationship between neuropsychological variables and reading level in 53 children who were reading disabled and 38 children who were non-reading disabled. Two multiple regressions, one using nine Wechsler subtests, and one using nine functional categories from the neuropsychological battery, were computed. Significant differences on both sets of variables emerged. Wechsler tests which were most predictive of reading level were Information, ($p = < .000$), Similarities ($p = < .001$), Picture Arrangement, ($p = < .001$), and Coding ($p = < .001$). These four tests accounted for 65 percent of common variance. Neuropsychological tests which were most predictive of reading level were Aphasia ($p = < .004$), Tactile Perception, ($p = < .005$) Auditory Processing, ($p = < .006$), and Grip Strength ($p = < .004$). These four tests accounted for 63 percent of the common variance. Both analyses supported the hypothesis of differential cerebral functioning in reading disabled and non-reading disabled children.

THE RELATIONSHIP OF PIAGETIAN COGNITIVE DEVELOPMENT LEVEL OF 10TH GRADE STUDENTS TO READING AND LANGUAGE ACHIEVEMENT

Order No. 7921937

LYNN, Evelyn Joan, Ed.D. The University of Florida, 1979. 132pp. Chairman: Dr. Vincent McGuire

This study was designed to investigate the relationship of the Piagetian Cognitive Development Level of tenth-grade students to reading and language achievement. The two major purposes of the study were to compare the cognitive levels of tenth-grade students and to determine the degree of correlation between cognitive level and reading/language achievement.

During the school year 1977–1978, 245 tenth-grade students of varied school-identified ability levels were selected from three randomly selected high schools in Volusia County, Florida. The sample included 120 males and 125 females.

All batteries of the Comprehensive Test of Basic Skills, Level 4, Form S, were administered to 234 students in the sample in April, 1978. This test provided data on reading and language achievement. During the first two weeks in May, 1978, the Group Embedded Figures Test and a test developed by the Cognitive Analysis Project for the National Science Foundation were administered. Used in a multiple regression equation, the scores of these two tests provided identification of students at concrete, transitional, or formal operational levels of cognitive development.

Five null hypotheses were tested. The first stated that there would be no significant difference between the cognitive level scores of this sample and the sample in the National Science Foundation's Cognitive Analysis Project. A t-test for independent samples revealed a t-value of 3.430 which was significant at the .05 level of confidence. This indicated that the two populations were not comparable, and hypothesis one was rejected.

Hypothesis 2 stated that there would be no significant difference between cognitive level categories and school-identified ability groupings. The Pearson Product Moment correlation was -.514 with a significance of .000. Hypothesis 2 was accepted.

Hypothesis 3 stated that there would be no significant difference between the cognitive level scores of males and females. A Chi-square statistic of 2.154 with a significance of .340 indicated that no relationship existed between sex and cognitive level. A t-value of 1.6 indicated no significant difference between the male and female populations at the .05 level of confidence; hypothesis 3 was accepted.

Hypothesis 4 stated that there would be no significant difference between the cognitive level scores and the scores of the Language Expression and Reading Comprehension tests of the Comprehensive Test of Basic Skills. The Pearson Product Moment correlation between cognitive level and Language Expression was .6399; the correlation between cognitive level and Reading Comprehension was .6394. Both had a significance of .001; thus, hypothesis 4 was accepted.

Hypothesis 5 stated that there would be no significant differences between the arithmetic means for concrete, transitional, and formal groups on subtests of the Comprehensive Test of Basic Skills. Bartlett's chi-square, used to determine heterogeneity, revealed F-ratios which were not significant. A one-way analysis of variance determined F-ratios for identified items on seven subtests of the Comprehensive Test of Basic Skills. All F-ratios had significance values of .000 indicating a significant difference between groups. Hypothesis 5 was rejected.

The Cognitive Analysis Project Test was practical to use and effective to identify the cognitive development levels of tenth-grade students. For students in this sample, 39.6 per cent were concrete operational; 50.2 per cent were transitional; and 10.2 per cent were formal operational. These findings corroborated the findings of earlier studies which had concluded that few students in senior high school are at a formal operational level of cognitive development. There appears to be no significant difference between the cognitive levels of males and females.

Cognitive development levels were found to be significantly related to reading and language achievement levels.

AUDITORY-VISUAL AND SPATIAL-TEMPORAL INTEGRATION ABILITIES OF ABOVE AVERAGE AND BELOW AVERAGE READERS

MARSHALL, Malcolm Frederick, Ed.D. The University of British Columbia (Canada), 1979. Supervisor: Dr. R. F. Jarman

The need was presented for further research of reading abilities in their early development, with emphasis on the information processing characteristics of the reader. The approach used was investigation of the sensory integration and cognitive processing abilities of above average and below average readers as inferred from cross-modal and intramodal matching of visual, auditory, spatial and temporal information.

The tasks required that a stimulus pattern presented in one modality dimension be compared with a second pattern in either the same or a different modality dimension. Subjects were required to classify pairs of stimuli (standard and comparison) as same or different. With three modality dimensions, namely auditory temporal (AT), visual temporal (VT), and visual spatial (VS), there were nine combinations of paired stimuli. These were AT-AT, AT-VT, AT-VS, VT-AT, VT-VT, VT-VS, VS-AT, VS-VT, and VS-VS.

To present these stimuli for matching, in a precise and consistent manner, nine cassette tapes and two electronic circuits were constructed. Stimulus patterns were series of dots (slides), auditory beeps or flashes of a light bulb. Each task contained 30 pairs of items randomly arranged for sameness or difference.

Subjects were 72 boys and 72 girls from 24 grade three classes in eight North Delta Schools. Half of each sex group were above average readers (high) and half were below average (low). All four groups were matched for non-verbal intelligence. The mean reading grade level for low readers was 3.2 and for high readers 5.8. Mean I.Q. for all groups was 94. Subjects in small groups received the nine tasks in a counterbalanced order of presentation over a period of 10 weeks.

Analysis of variance results showed a significant main effect for reading with high readers superior on all matching tasks. A very strong main effect was found for the standard stimulus due mainly to the (easy) VS patterns and to the greater difficulty of VT standards. A strong main effect was also found for the comparison stimuli due to easier VS comparisons. A significant standard X comparison interaction indicated that VT standards made AT comparisons more difficult than with AT standards, while the reverse held for VT comparisons. A significant comparison X reading interaction showed the same disordinal interaction of AT and VT stimuli, particularly for low readers.

As there was no significant main effect for sex, data were pooled across sex and factor analysed by principal components solution with varimax rotation. Different factor loadings for high and low readers indicated that different cognitive processes were involved in the integration of auditory, visual, spatial and temporal information by these two groups. Tasks loaded on spatial and temporal factors rather than visual and auditory.

Inspection showed that purely spatial tasks were easiest while purely temporal tasks were most difficult. Pairwise comparisons showed that cross-modal matches were significantly more difficult than intramodal only for low readers. Similarly, processing temporal informatic . in the visual modality was significantly more difficult than processing spatial information, only for low readers.

An item analysis examined the discriminatory power of items within the tasks in terms of point biserial correlations and item structure. Kuder-Richardson formula 20 reliabilities showed the tasks to be of adequate reliability.

Findings were discussed in relation to the modality-specific view of sensory functioning which appeared to apply only to low readers. Findings were also discussed in terms of the writing of Luria, deriving from studies of brain-behaviour relationships, and the paradigm of simultaneous and successive processing arising out of Luria's work.

Implications of the findings for reading were drawn and some suggestions as to how the findings might be applied to remedial practices were made.

CHILDREN'S MEMORY FOR PROSE: THE RELATIONSHIP BETWEEN DEPTH OF PROCESSING AND THE RECALL OF THEMATICALLY RELEVANT MATERIAL BY GOOD AND POOR READERS Order No. 7919397

MARTINEZ, Patricia Roberts, Ed.D. University of Houston, 1979. 128pp.

One hundred sixty seventh-grade students, subsequently classified as good and poor readers, read a prose passage. Independent groups of students at each reading level were required to process the passage according to different size units of information, i.e., single words, sentences, and paragraphs. A control group of students at each reading level read the entire passage in their normal fashion. All students were given an immediate free recall test, and the number of idea units recalled at each of four levels of structural importance to the passage constituted the dependent variable of interest.

The results indicated that reading level, processing conditions, and level of idea-unit importance all had significant effects on recall. Good comprehenders recalled a greater proportion of the stories than poor comprehenders. Subjects processing according to individual words recalled the smallest proportion of idea units while subjects processing by sentences recalled the greatest proportion of idea units. Subjects processing according to paragraph-size units recalled the same proportion of idea units as did subjects in the control group, their performance at intermediate levels relative to the first two conditions. For both types of readers, the likelihood of recalling a particular idea unit in the passage was clearly a positive function of the unit's structural importance.

The results also indicated that processing conditions interacted with the type of reader and level of importance. For good comprehenders inducing to process according to paragraph-size units tended to have a negative effect on recall performance relative to the control group while processing according to sentences had no effect. For poor comprehenders, inducing to process according to paragraph-size units had no effect on recall relative to the control group while processing by sentences tended to have a facilitating effect. Inducing processing of single words had a decremental effect on recall and levels of importance for both good and poor comprehenders relative to spontaneous processing without imposed constraints. For both types of readers, processing conditions affected recall of important idea units more than unimportant idea units. One major conclusion from the study is that poor comprehenders can be induced to take in larger units of information which results in more meaningful processing and better retention of the prose material.

THE RELATIONSHIP OF REFLECTION-IMPULSIVITY, I.Q., AND FIRST-GRADE READING ACHIEVEMENT

Order No. 7915270

MILLER, Susan Ann, Ph.D. University of Missouri - Columbia, 1978. 97pp. Supervisor: Dr. Veralee B. Hardin

Purpose: This study examined the relationship between the reflection-impulsivity dimension and reading achievement. The following questions were investigated: 1) Does a linear relationship exist between Matching Familiar Figures Test (MFFT) (Kagan, Rosman, Day, Albert, & Phillips, 1964) response latency, MFFT error, and I.Q. scores (independent variables) and reading achievement scores (dependent variables) at the end of the first grade? and 2) Does a difference exist at the end of the first grade in the reading achievement of children classified as reflective and the reading achievement of those classified as impulsive?

Method: One hundred one first-grade children were given the Kuhlmann-Anderson Test of intelligence, the Gates-MacGinitie Reading Tests, and the Matching Familiar Figures Test (MFFT). The MFFT is an individually administered test designed to measure the reflection-impulsivity dimension of conceptual tempo. Critical variables scored are response latency and errors.

Acknowledging the recommendations of current research, multiple correlations and stepwise regression equations were computed to determine if a relationship existed between MFFT response latency, MFFT error, and I.Q. scores (independent variables) and the Vocabulary, Comprehension, and Composite reading scores (dependent variables).

The second analysis involved Kagan's traditional double-median-split method to classify subjects into groups of reflective and impulsive subjects. Those subjects who were neither reflective nor impulsive were then dropped from further statistical analysis. Following the identification of these two groups, a one-way multivariate analysis of variance was computed to determine the overall effect of Kagan's classifications of reflection and impulsivity on the reading scores of the two groups.

Results: The results of multiple correlations and stepwise regression equations indicated that I.Q. was a significant predictor of first-grade reading achievement. Neither MFFT error nor MFFT latency scores was a significant predictor of reading performance. The one-way multivariate analysis of variance found no significant difference between the reading achievement of the reflective group and the reading achievement of the impulsive group. A supplementary factor analysis found that the three reading scores apparently contained one factor. MFFT latency, MFFT error, and I.Q. had high factor loadings on one common factor.

Conclusions: Teachers at the first-grade level may continue to use intelligence tests such as the Kuhlmann-Anderson Test as one of several predictors of reading achievement. Teachers should question the use of the scores from the Matching Familiar Figures Test to predict reading success or difficulty at the first-grade level. First-grade teachers cannot assume that children classified as impulsive by the Matching Familiar Figures Test will have more difficulty with reading than children classified as reflective.

THE RELATIONSHIP BETWEEN READING PERFORMANCE AND AWARENESS OF COMPREHENSION OF TEXTBOOK PASSAGES

Order No. 7923136

MIZE, John McMartin, Ph.D. University of Georgia, 1979. 116pp. Supervisor: George Mason

The purpose of this study was to investigate if reading ability is related to a reader's awareness of whether he is comprehending a text passage as he reads. Since one cannot directly measure awareness of comprehension, the study was designed to investigate if reading ability as measured by a standardized reading test is related to a reader's ability to make judgements concerning the correctness or incorrectness of his answers to comprehension questions. One hundred forty-four seventh graders representing all levels of reading ability were asked to predict how many of the fourteen questions they would answer correctly before reading each of two passages (the confidence index). After reading the passages, they were again asked to predict the number of questions they would answer correctly (index of general judgment). For every item of the test, each subject was asked to judge whether he had answered the item correctly or incorrectly (index of specific judgement). While answering the questions, half the students were allowed to refer to the passage; half were not (the passage condition). Two measures of ability to judge degree of comprehension were the index of specific judgement and the index of general judgement. The former was related to reading ability, the passage condition, and the number of correct responses. The latter was related to reading ability, the passage condition, the number of correct responses, and the confidence index. The independent variables were subjected to a stepwise regression analysis to determine how each set of variables predicted the variance in the respective dependent variables. Hierarchical regression analyses were conducted and zero order correlation coefficients were computed as a post hoc examination of the data. The number of correct responses best predicted ($p < .05$) the index of specific judgement. Reading ability and the passage condition did not account for a significant amount of variance in the index of specific judgement. When placed first in a prediction equation, reading ability accounted for 12 percent of the variance ($p < .05$) in the criterion measure. When placed second, the passage condition accounted for 25 percent of the variance ($p < .05$). When placed third, the number correct accounted for 37 percent of the variance ($p < .05$). There was a positive correlation of .44 between reading ability and the number correct, of .36 between reading ability and the index of specific judgement, and of .86 between the number correct and the index of specific judgement. The confidence index best predicted ($p < .05$) the index of general judgement. Reading ability also contributed to predicting ($p < .05$) the index of general judgement but accounted for only 2 percent of the variance. In comparison, the confidence index accounted for 56 percent of the variance. When placed first in a prediction equation, reading ability accounted for 16 percent of the variance ($p < .05$) in the criterion measure. When placed second, the number correct accounted for 6 percent of the variance ($p < .05$). When placed third, the confidence index accounted for 37 percent of the variance ($p < .05$). When placed last, the passage condition accounted for less than 1 percent of the variance (ns). There was a positive relationship of .35 between reading ability and the confidence index, of .40 between reading ability and the index of general judgement, of .39 between the number correct and the index of general judgement, and of .75 between the confidence index and the index of general judgement. The findings of this study suggest that reading ability is not closely related to a reader's awareness of whether he is comprehending as he reads and very often, even a good reader's general impression of his degree of comprehension does not correspond well to his actual comprehension as determined by test performance.

THE RELATIONSHIP OF SPECIFIC SELF-CONCEPT DIMENSIONS AND READING ACHIEVEMENT AT THE MIDDLE SCHOOL LEVEL

Order No. 7918312

NICHOLS, Jennifer Morgan, Ed.D. Auburn University, 1979. 117pp. Director: Arthur F. Coss

The purpose of the study was to investigate the relationship of reported self-concept and reading achievement of children in a selected middle school. The major objective of the study was to examine the relationship of the self-concept dimensions of self, peer relationships, parent relationships and school to reading achievement.

The sample for the study was 266 students in grades four, five, six, seven and eight in a rural middle school. The total sample was assessed on the reading subtest of the California Achievement Test, the Coopersmith Self-Esteem Inventory, the Piers-Harris Self-Concept Scale for Children, and a semantic differential attitude scale designed by the researcher.

Pearson product moment correlation coefficients were computed between the reading scores and each of the self-concept dimension scores for each grade level.

Findings of the study indicated that a significant positive relationship existed between the self-concept dimension of self and reading achievement and the self-concept dimension of peer relationships and reading achievement for grade levels six, seven and eight. There was evidence in the study to support that a significant positive relationship existed between the self-concept dimension of parent relationships and reading achievement for grades five, six and eight. A significant positive relationship was found between the self-concept dimension of school and reading achievement for all grade levels examined in the study.

Significant relationships were noted between the sex of a student and reading achievement for the fourth and seventh grade levels, and females tended to have higher reading achievement than males. Significant relationships were also revealed between the race of a student and reading achievement in grade levels four, five, seven and eight with white students having higher reading achievement than black students.

RELATIONSHIP OVER TWO YEARS BETWEEN ATTAINMENT OF PIAGET'S CONCRETE OPERATIONS AND READING PERFORMANCE OF PRIMARY GRADE CHILDREN
Order No. 7919895

RANDOLPH, Micaelia Frances, Ed.D. University of the Pacific, 1978. 132pp.

PROBLEM: David Elkind and others have claimed that due to the complex, multiple relationships between sound and symbol in English, the process of learning to read requires logical abilities beyond simple discrimination and association. It has further been asserted that these abilities are not available to most children prior to the stage of reasoning which Piaget calls concrete operational. The purpose of this study was to examine primary grade children to determine whether a relationship existed between attainment of the concrete operational stage of reasoning and two aspects of reading performance: decoding and reading comprehension.

PROCEDURE: An elementary school located in Stockton, California served as the source of data collection. A random sample of 120 primary grade children was drawn from the school in 1976, and subjects were studied over a two-year period of time. A selection of five, individually-administered Piagetian assessments was used to determine each child's stage of reasoning. Assessments tapped logical abilities in classification, seriation, and conservation. Based on their performance on the tasks, subjects were designated as either preoperational or concrete operational in their reasoning. Reading performance was measured using subtests of the Metropolitan Achievement Test (MAT). Analysis of variance (ANOVA) and Analysis of covariance (ANCOVA) were used to detect differences between preoperational and concrete operational groups in both decoding and reading comprehension.

Two years later, in 1978, the reasoning assessments and the reading measures were administered again to those subjects who still remained at the school (n = 66). Pearson Product Moment Correlation (Pearson r) was used to determine the relationship between gains in cognitive development over the two years and gains in: 1) decoding, and 2) reading comprehension. ANCOVA was used to detect differences on the MAT between subjects who had moved to the concrete operational stage of reasoning over the two-year period and those who had remained at the preoperational stage over the same period of time.

FINDINGS: The findings of this study did not provide definitive results regarding the questions under investigation. Hypotheses which predicted that concrete operational children would outperform preoperational children in decoding and reading comprehension were supported by data on the MAT. However, when the effects of decoding were accounted for, differences between the two groups in reading comprehension disappeared.

None of the hypotheses regarding the relationship between gains in cognitive development and gains in reading over two years were supported by data from the study. However, these particular findings should be viewed with reserve since they likely reflect random fluctuations associated with: 1) instrumentation, and 2) decreased sample sizes. Therefore, although this study was unable to provide more conclusive information regarding the relationship between attainment of concrete operational thought and reading competence, it should not be concluded that no such relationship exists.

RECOMMENDATIONS: The following recommendations for further research were made: 1) Replicate the present study with modifications which include choosing a reading test which has a decoding measure for all grade levels, using Piagetian measures which span a range of development from preoperational through formal operational, and increasing initial sample size to compensate for inevitable attrition over time; 2) Conduct more experimental studies which examine the effects of cognitive training on the reading performance of trained vs. untrained subjects; and 3) Continue to conduct studies whose goal is the creation of a precise and reliable testing instrument for the measurement of the Piagetian competencies.

THE RELATIONSHIP BETWEEN BUSING AND READING ACHIEVEMENT OF FIFTH AND SIXTH GRADE PUPILS IN AN URBAN SCHOOL DISTRICT Order No. 7924078

RUBIN, Ethel Fisher, Ed.D. Temple University, 1979. 181pp.

The purpose of this study was to determine the relationship between busing and reading achievement in an urban school district. The busing program which was considered was implemented to relieve overcrowding in neighborhood schools. More specifically, this study examined the reading achievement of the groups included, to answer the following questions about the bused and non-bused pupils:

1. Do the bused pupils achieve percentile reading scores that are significantly different from the non-bused pupils?
2. Is the level of reading achievement in the receiving schools related to differences in achievement between the bused and non-bused pupils?

The selection of pupils to be bused was made so that the receiving school was provided with a group of pupils whose ability range reflected a cross section of the neighborhood school's total school population. Neighborhood schools with insufficient classroom space for their pupils bused to schools with enough classroom space to accommodate the pupils from overcrowded schools. The selection of sending and receiving schools included in this study was mandatory, determined by the central office administration of the School District of Philadelphia.

Eight schools were included in this study and were examined in three clusters. Each cluster included the sending school and the receiving schools to which the bused pupils were sent. Each of the clusters was examined, and then the clusters were combined, to answer the two research questions. The schools were categorized in accordance with the Achievement Development Scale Scores for Reading as high average achieving schools, low average achieving schools and low achieving schools.

Data were obtained for each pupil from the results of the California Achievement Tests administered in May, 1974 and February, 1976. The National Percentile Rank scores of the Reading sub-test were used in all of the data. Comparisons were made by determining the number of pupils who maintained or increased their California Achievement Test National Percentile Ranks between the years 1974 to 1976. Maintenance of percentile ranks from year to year indicates the pupils have attained the anticipated achievement growth in one year.

As a result of the study, the following was determined:

1. Data for each cluster was computed using the chi-square statistic; then a composite was computed to answer question 1, to determine if the bused pupils achieved percentile reading scores that were significantly different from the non-bused pupils. The chi-square value was equal to 11.9, significant at the .01 level. When California Achievement Test National Percentile Reading scores for bused pupils were compared to the non-bused pupils for the total sample, a greater proportion of bused pupils maintained or increased their scores.

2. Composite scores of all three clusters were examined, to answer question 2. In determining if the level of reading achievement in all the receiving schools was related to differences in achievement between the bused and non-bused pupils, the writer noted that all the receiving schools were rated as higher reading achievement schools than the sending schools from which the pupils were bused, with significant differences noted. Thus, when comparing the bused and non-bused pupils, the bused pupils achieved higher California Achievement Test percentile reading scores than the non-bused pupils, in schools rated as higher reading achievement schools.

The writer made the following conclusions as a result of the findings: Busing of fifth and sixth grade pupils to alleviate conditions of school overcrowding has not adversely affected their achievement as measured by percentile reading scores. In general, busing pupils to higher achieving schools has produced evidence that appears to suggest that pupil performance in reading in the new school may have had a positive effect on the bused pupils.

THE INFLUENCE OF SEX-ROLE PREFERENCE, SEX-TYPING, AND SOCIAL DESIRABILITY ON CHILDREN'S READING AND ARITHMETIC ACHIEVEMENT

Order No. 7924025

SEGOVIA, Mercia Bristol, Ph.D. Temple University, 1979. 117pp.

Three socio-cultural factors, identified as sex-role preference, sex-typing, and social desirability were investigated as possible predictors of children's reading and arithmetic achievement. The subjects were 625 fourth, fifth, and sixth grade children, predominantly Jewish and of middle- to upper middle-class backgrounds.

Sex-role preference was measured by a toy preference test constructed by the researcher and consisting of 45 slides. A paper-and-pencil checklist assessed children's sex-typing of reading and arithmetic. Social desirability was measured using a modified version of Crandall, Crandall, and Katkovsky's Children's Social Desirability questionnaire. Test reliability was obtained for each measure prior to use in the study. The reading and arithmetic criterion measures were assessed by standardized achievement tests.

Two major hypotheses relating sex-role preference and sex-typing of reading and arithmetic to children's achievement in these areas were tested. It was expected that boys' conventional (masculine) role preference would be negatively associated with achievement in reading (a subject supposedly sex-typed as feminine). In girls, it was expected that conventionally feminine role preference would be negatively associated with achievement in arithmetic (a subject supposedly sex-typed as masculine). Both relationships were expected to remain true when IQ and social desirability were statistically controlled.

Stepwise multiple regression analyses by sex showed that contrary to prediction, boys' masculine role preference and sex-typing of reading were not significant predictors of boys' reading achievement; the only significant predictor was boys' IQ. On the other hand, girls' masculine role preference did significantly predict their arithmetic achievement test scores, and this relationship remained true even with IQ and social desirability statistically controlled. However, sex-typing of arithmetic scores did not significantly predict arithmetic achievement in girls.

A number of other interesting findings emerged: (a) there was a significant relationship for both sexes between masculine role preference and social desirability tendencies; (b) boys' preference for the masculine role was stronger and less variable than was girls' preference for the feminine role; (c) although both sexes sex-typed reading as feminine, they also perceived arithmetic as slightly feminine; (d) no sex differences were found in reading and arithmetic achievement.

Although there was weak support for some of the hypotheses, it is fair to conclude that the results were largely negative. Sex-typing and sex-role preference showed very little relationship to reading and arithmetic performance. These negative results were partially attributed to atypical characteristics of the sample. The children studied were predominantly Jewish and of above average intelligence and socioeconomic status. There is reason to believe that in such groups the influence of sex-role preference on academic achievement may be lower than in the general population. Another possibility is that the lessening influence of traditional sex roles has attenuated relationships that may have once existed between sex-role preference and academic achievement.

THE RELATIONSHIP OF LANGUAGE ABILITIES AND READING PERFORMANCE OF INTERMEDIATE ABLE AND DISABLED READERS AT THREE GRADE LEVELS

Order No. 7928233

SELLERS, Dava White, Ed.D. Oklahoma State University, 1979. 96pp.

Purpose of the Study: This study is designed to investigate whether or not language ability of able and disabled intermediate grade readers is related to their reading performance. The relationship of selected language abilities and reading performance were examined for disabled and able readers in fourth, sixth, and eighth grades. The reading and language skills selected for investigation are silent reading comprehension, vocabulary, verbal comprehension, and syntactic maturity.

The seventeen scores chosen to measure these abilities and performances were obtained from selected subtests of the following assessment instruments: Gates-MacGinitie Reading Test, Wechsler Intelligence Scale for Children-Revised, Peabody Picture Vocabulary Test, and an Instrument for Syntactic Maturity. A free writing passage was analyzed using the Dale-Chall Readability Formula.

The students were screened using the nonverbal battery of the Lorge-Thorndike Intelligence Test and the Gates-MacGinitie Reading Test. Only those students performing within the average range of intelligence on the Lorge-Thorndike Intelligence Test and whose silent reading comprehension scores on the Gates-MacGinitie Reading Test meet the criteria for classification as able or disabled readers at each of the three grade levels were included in this study. Disabled readers are defined as: fourth graders reading .8 years below grade level, sixth graders reading 1.2 years below grade level, and eighth graders reading 1.5 years below grade level. Able readers are defined as those readers reading at or above their expectancy level.

The subjects for this study were selected from schools in two north-central Oklahoma counties. These schools are considered to be representative of a cross section of socio-economic levels. The schools' willingness to participate in this study and their accessibility was also a consideration.

Statistical Analysis: The Pearson product-moment correlation coefficients were used to determine the relationship of the language variables measured to reading performance for able and disabled reading groups at each of three grade levels. Tests of significance using Student's t were computed for each coefficient. Fisher's transformation to z_r was used to determine possible differences in the degree of relationship of language abilities and reading performance for each reading group.

Findings and Conclusions: Significant relationships were found to exist between measures of language ability as represented by receptive vocabulary, oral expressive vocabulary, and verbal comprehension and reading performance measures of comprehension and vocabulary. Seventy-seven percent of the significant relationships were found to be between reading and the oral language variables. Of the significant relationships found between written language and reading variables, seventy-nine percent were for the fourth grade able group.

Findings of this study show that although reading performance and language abilities do not necessarily progress at the same rate for able readers in the intermediate grade levels there is a significant relationship between the two. The able intermediate readers show scores that indicate a greater proficiency in language skills than do intermediate disabled

readers. Language skills for the disabled intermediate reading group showed a tendency to progress at a slower rate than did the language skills for the able reading groups and seemed to level off between the sixth and seventh grade levels.

A STUDY OF THE KINETIC FAMILY DRAWING AND READING ACHIEVEMENT

Order No. 7916089

SKIDIS, Doris Jean, Ph.D. Southern Illinois University at Carbondale, 1978. 111pp. Major Professor: Dr. John T. Mouw

Kinetic Family Drawings were obtained from 64 sixth-grade students for the purpose of studying the relationship between the drawings and reading achievement on the following factors: style; interpretation; size of the self-figure; distance from self-figure to the mother figure; number of parents drawn. Relationships between indices obtained from the K-F-D and measures from the Piers-Harris Children's Self Concept Scale and a Sociogram were examined. Stability over time and interjudge reliability correlation coefficients were obtained on styles and interpretations.

Thirty-two males and 32 females, ranging in reading achievement levels from -2.9 to +3.8 years were tested in two sessions with a three-week time lapse. In the first session, the Kinetic Family Drawing followed by the Piers-Harris Children's Self Concept Scale were administered. Three weeks later another Kinetic Family Drawing was obtained from each student. Sociogram data were obtained by the classroom teachers after the second testing session.

Each drawing (128 total) was scored "blindly" by three judges. They were scored for style (Compartmentalization, Edging, Encapsulation, Folding Compartmentalization, Lining at the Bottom, Lining at the Top, Underlining Individual Figures, No Style) and interpretation (Bodily Concern, Isolation, Rivalry, No Problem). Height of self-figure and distance from mother figure were measured in mm. Reading achievement was determined using the Bond-Tinker Formula. The Piers-Harris Children's Self Concept Scale was machine scored for total score and six factor scores.

Multiple Linear Regression Analysis (DP Linear) was performed. Ninety-nine variables were included in the study; age and sex were controlled statistically wherever appropriate.

Results of the investigation were: 1) No significant relationships were found to exist between K-F-D styles or K-F-D interpretations and reading achievement level, over and above the effects of age and sex; 2) No significant relationships were found to exist between reading achievement level: size of the self-figure; or choices on the sociogram; 3) Indices of measures obtained from the Piers-Harris Children's Self Concept Scale and a sociogram revealed relatively low correlation coefficients to K-F-D styles; 4) Interjudge reliability correlation coefficients on both styles and interpretations were comparatively higher. It was concluded that the incidence of K-F-D styles or K-F-D interpretations do not discriminate between sixth-grade children reading at or above expectancy from those reading below expectancy. Furthermore, the incidence of all the styles except Folding Compartmentalization and Edging are consistent with previous research that the styles are found in the normal population and to a greater extent than those drawings scored No Style. K-F-D styles Compartmentalization and Encapsulation and K-F-D interpretations Isolation and Sibling Rivalry occurred with the greatest frequency.

It was also concluded that the children in this sample with reading problems do not differ significantly from children reading at or above expectancy in the height that they draw the self-figure, the distance between the self-figure and the mother-figure, or the number of parents drawn. Use of the Piers-Harris Children's Self Concept Scale was unsuccessful in yielding concurrent and construct validity to K-F-D styles. Interjudge reliability on K-F-D styles ranged between 72% and 84% and on K-F-D interpretations from 57% to 77%; the stability coefficients indicate that further efforts are required to investigate reliability of the K-F-D styles and K-F-D interpretations over time.

AN INVESTIGATION OF THE RELATIONSHIP BETWEEN EAR DOMINANCE AND READING VOCABULARY PERFORMANCE IN FIRST-, SECOND-, AND FOURTH-GRADE STUDENTS

Order No. 7924407

SMITH, Richard Gray, Jr., 1979. Northern Illinois University, 1979. 79pp.

The purpose of this study was to investigate any relationship existing between ear dominance and reading vocabulary proficiency in first-, second-, and fourth-grade students. Ear dominance was measured by a dichotic tape involving the simultaneous presentation in both ears of unrelated words from the Detroit Test of Learning Aptitude at the rate of 160 words per minute in groups of two, three, and four word pairs. The instrument utilized to test reading vocabulary performance was the vocabulary subtest (Forms A, B, and D) of the Gates-MacGinitie Reading Tests.

The population consisted of 144 first-, second-, and fourth-grade students who were identified as not being learning disabled, retarded, emotionally disturbed, or hearing imparied. Forty-eight students (24 boys and 24 girls) were selected from each grade level. The students were all Caucasian and were from predominantly middle and upper-middle class families.

The general hypothesis tested was: Is there a relationship between ear dominance and reading vocabulary performance for fourth-grade students, but not for first- or second-grade students? This hypothesis was developed and supported by studies which revealed:

1. The development of cerebral dominance for language is a gradual process which is not complete until puberty (Lenneberg, 1967).
2. A relationship between ear dominance and reading performance is present only at later school ages when language functions are more completely lateralized (Bakker, 1973, 1976; Satz & Sparrow, 1970).

The statistical analyses included the calculation of a Pearson Product-Moment Correlation coefficient at each grade level. A z test for determining the significance of difference between two independent correlation coefficients was also calculated.

The relationship between ear dominance and reading vocabulary performance at each grade level was found to be not significant. No significance was found in the differences between the correlations at each grade level.

Based on the above findings, it was concluded that no relationship exists between ear dominance and reading vocabulary performance for first-, second-, and fourth-grade students. It was also concluded that no significant differences will be found between ear dominance and reading vocabulary performance across grades one, two, and four.

While no relationship was predicted and found between ear dominance and reading vocabulary performance at grades one and two, a nonsignificant relationship was also found between ear dominance and reading vocabulary performance at the fourth-grade level. A significant relationship had been hypothesized to exist at the fourth grade level. No predictions can be made regarding ear dominance and reading vocabulary performance based upon the findings of this study.

The ear dominance score was derived from a dichotic listening task at the rate of 160 words per minute using the total number of words recalled from both ears (in a ratio scoring procedure) as the measure of dominance. The language requirement was free recall of the words presented on the tape. As mentioned by Brown and Jaffe (1975) and van Duyne (1979), task conditions and language requirements may affect performance on ear asymmetry measures. It was suggested that significant relationships between ear dominance and reading vocabulary performance might occur using a dichotic task with different rates, different task conditions and different scoring procedures. The use of a monaural listening test instead of dichotic listening tests as a measure of ear dominance may also have produced different results. It was also suggested that a more comprehensive assessment of reading performance (rather than just reading vocabulary) might present significant relationships with ear dominance.

- It was recommended that future studies might explore the differences in performance within ear (left or right) rather than the differences between ears. In this way, an analysis of functioning within each hemisphere rather than between the hemispheres can be studied.

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